



SHORT-CYCLE ARC WELDING SYSTEM AND METHOD

COPY

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application is a continuation of PCT application PCT/EP02/09760, filed on September 2, 2002, which claims priority to German application no. DE 101 44 256.4, filed on September 3, 2001, both of which are incorporated by reference herein.

BACKGROUND AND SUMMARY OF THE INVENTION

[0002] The present invention relates to a short-cycle arc welding system for welding elements, such as metal studs, to components, such as metal sheets, having:

- a robot that has at least one arm that can move in at least one coordinate axis
- a welding head that is mounted on the arm and on which is provided a holder for holding an element and a linear motion device for advancing and retracting the holder relative to the welding head, and
- a measurement system for determining the relative position of a component to an element to be welded to the component and held by the holder, wherein the measurement system has a foot mounted on the welding head that is designed to contact the component during operation in order to determine the relative position of the element to the component.